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Service

**Eastern  
Region**

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2006



# Green Mountain National Forest

## **Final Environmental Impact Statement**

**To Accompany the Land and  
Resource Management Plan**



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# **Final Environmental Impact Statement for the Land and Resource Management Plan**

## **Green Mountain National Forest**

Eastern Region  
Milwaukee, Wisconsin  
February 2006

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**Abstract**

In April 2005, the Forest Service released for public review and comment a Draft Environmental Impact Statement (DEIS) that described five possible ways to manage the Green Mountain National Forest (GMNF). Alternative E was the Preferred Alternative in the DEIS and was the foundation for the Proposed Revised Forest Plan. Alternative E was modified in the Final Environmental Impact Statement (FEIS) to address public comments and new information received since the release of the DEIS. Alternative E is referred to as the "Selected Alternative" or "Alternative E Modified" in the Record of Decision, some parts of the FEIS, and FEIS Appendix H – Response to Comments.

This FEIS documents the analysis of the five alternatives developed for programmatic management of the GMNF. The Selected Alternative, outlined as the Green Mountain National Forest 2006 Land and Resource Management Plan (2006 Forest Plan), guides all natural resource management activities on the Forest; addresses new information and concerns raised since the 1987 Forest Plan was published; and meets objectives of federal laws, regulation, and policies.

Rationale for choosing Alternative E Modified as the Selected Alternative is described in the Record of Decision for this FEIS.

## Preface

The Green Mountain National Forest (GMNF) was established in 1932 after uncontrolled logging, fire, and flooding ravaged the State of Vermont. The United States government established a “Proclamation Boundary,” within which parcels of land could be purchased to increase the size and benefits of the Forest. The Forest now consists of more than 400,000 acres of National Forest System lands located in central and southern Vermont. The United States Department of Agriculture’s Forest Service administers the GMNF, aided by partners, other agencies, individuals, and concessionaires. Forest Service personnel practice multiple-use natural resource management, thus providing the State of Vermont and the New England area with wood for local industries; a wide range of recreation opportunities; a vibrant watershed for local tributaries; diversified habitat for wildlife; and protection of unique ecological and wilderness areas.

Under the Multiple-Use Sustained-Yield Act of 1960 and the Forest and Rangeland Renewable Resources Planning Act of 1974, as amended by the National Forest Management Act of 1976 (NFMA), National Forest System lands are managed for a variety of uses on a sustained yield basis to ensure a continued supply of goods and services. The NFMA specifies that forest plans shall be developed for all national forests and should be revised at least every 15 years. The *Land and Resource Management Plan for the Green Mountain National Forest* (Forest Plan) was approved in 1987 and since that time, there have been considerable changes in Forest conditions, shifts in public demands, technological advances, and a better understanding of forest ecosystems from Plan implementation monitoring. These factors combined together are the basis for the revision of the GMNF Forest Plan.

Following the direction of the National Environmental Policy Act (NEPA), the Forest Service has prepared this Final Environmental Impact Statement (FEIS) for the revision of the

1987 Forest Plan. The FEIS provides the purpose and need for Plan revision, discloses a description of the issues addressed, the five alternatives considered to respond to the issues, and an analysis of the potential environmental effects of the alternatives. Each alternative offers a different management approach for the GMNF.

The 2006 Land and Resource Management Plan (2006 Forest Plan) accompanies this FEIS and is based on the Selected Alternative that is described in Chapter 2 of the FEIS. The 2006 Forest Plan describes desired conditions, assigns goals and objectives, provides standards and guidelines as to how to achieve the desired conditions within specific parameters, and outlines a program for monitoring and evaluating results of implementation.

This FEIS is organized into the following chapters and appendices:

**Chapter 1: Purpose and Need** – Describes the need for change, decisions made in the Forest Plan, public involvement, and a discussion of the issues associated with Plan revision.

**Chapter 2: Alternatives** – Describes the process used to develop alternatives; lists important elements common to all alternatives; gives a general description of each alternative; explains why some alternatives were not considered in detail; and provides a summarized comparison of environmental consequences of alternatives, including the Preferred Alternative.

**Chapter 3: Affected Environment and Environmental Consequences** – Provides the existing condition of the physical, biological, social, and economic resources and discloses possible environmental consequences (effects) of the five alternatives on those resources in a comparative format. The effects are tied closely to the issues discussed in Chapter 1.

**Chapter 4: Preparers** – Lists those who participated in preparation of the DEIS or FEIS.

**Chapter 5: Agencies Consulted and FEIS Recipients** – Lists the federal, State, and local agencies, tribal governments, organizations, businesses, and individuals who were distributed copies of the FEIS or the FEIS Executive Summary.

**Chapter 6: References** – Lists the literature cited in the preparation of the FEIS.

**Chapter 7: Glossary** – Provides terms and definitions used in the FEIS.

**Chapter 8: Index** – An index of terms used in the FEIS.

**Appendix A: Summary of Public Involvement** – Provides a detailed description of the public involvement process associated with preparing the FEIS.

**Appendix B: Analysis Processes** – Discusses the primary analysis processes used in determining the outputs and effects associated with the timber and socioeconomic resources.

**Appendix C: Wilderness** – Reviews the current situation of designated wilderness on the GMNF, the need for additional wilderness, and the process used to develop recommendations for additional wilderness.

**Appendix D: Wild and Scenic Rivers** – Summarizes the process by which the Forest Service analyzed and identified rivers eligible for protection under the Wild and Scenic Rivers Act.

**Appendix E: Biological Evaluation** – Provides the detailed evaluation of effects to federally threatened and endangered species, and Regional Foresters Sensitive Species (RFSS).

**Appendix F: Roads Analysis Process** – Describes a summary of the Roads Analysis Process (RAP).

**Appendix G: Proclamation Boundary Mapping** – Addresses the current situation with newly acquired lands on the GMNF and the course of action to remedy future land acquisitions under the revised Forest Plan. It includes the mapping strategy, information sources, and tabular and mapping results for designating management areas on non-NFS lands within the Proclamation Boundary.

**Appendix H: Response to Comments** – Summarizes the public comments received on the DEIS and Proposed Revised Forest Plan, and the Forest Service responses.



## Table of Contents

List of Tables	viii
List of Figures	xiv
Vicinity Map	xv

### Chapter 1 – Purpose and Need

Introduction	1-2
Forest Plan Decisions	1-2
Purpose and Need for Change	1-3
Proposed Action	1-4
Public Involvement and Collaborative Planning	1-5
Issues	1-7

### Chapter 2 – Alternatives

Introduction	2-2
Alternative Development	2-2
Changes between the Draft and Final Environmental Impact Statements	2-3
Elements Common to All Alternatives	2-10
Alternatives Considered in Detail	2-13
Alternatives Eliminated from Detailed Study	2-23
Comparison of Alternatives	2-25

### Chapter 3 – Affected Environment and Environmental Consequences

Introduction	3-2
Soil	3-22
Water	3-33
Air	3-41
Vegetation	3-48
Wildlife and Wildlife Habitat	3-98
Fisheries	3-134
Threatened and Endangered Species	3-140

Species of Potential Viability Concern	3-151
Recreation Opportunities and Forest Settings	3-200
Areas of Special Significance	3-226
Wilderness, Wild and Scenic Rivers, and National Recreation Area	3-255
Timber Management	3-277
Non-Recreation Special Use Management	3-292
Visual Resources	3-302
Heritage Resources and Tribal Relations	3-315
Wildland Fire Management	3-324
Special Forest Products	3-333
Minerals	3-341
Road Management	3-345
Social and Economic Factors	3-352
Other Disclosures	3-387

## Chapter 4 – Preparers

Preparers	4-2
-----------	-----

## Chapter 5 – Recipients

Recipients	5-2
------------	-----

## Chapter 6 – Literature Cited

Literature Cited in the Final Environmental Impact Statement	6-2
--	-----

## Chapter 7 – Glossary

Glossary Terms	7-2
----------------	-----

## Chapter 8 – Index

Index	8-1
-------	-----



## Appendices

Appendix A. Public Involvement	A-1
Appendix B. Analysis Processes	B-1
Appendix C. Wilderness	C-1
Appendix D. Wild and Scenic Rivers	D-1
Appendix E. Biological Evaluation	E-1
Appendix F. Roads Analysis Process	F-1
Appendix G: Proclamation Boundary Mapping	G-1
Appendix H: Response to Comments	H-1

## List of Tables

<b>Table Number</b>	<b>Page</b>
Table 2.1-1: GMNF Alternative A Management Area Acres	2-14
Table 2.1-2: GMNF Alternative B Management Area Acres	2-16
Table 2.1-3: GMNF Alternative C Management Area Acres	2-18
Table 2.1-4: GMNF Alternative D Management Area Acres	2-20
Table 2.1-5: GMNF Alternative E Management Area Acres	2-22
Table 2.1-6: Management Area Allocations by Alternative	2-26
Table 2.1-7: Comparison of Alternatives by Issue	2-27
Table 2.1-8: Comparison of Environmental Effects by Alternative	2-34
Table 3.2-1: Soil Effects of Common FS Activities on the GMNF, without soil protection measures	3-28
Table 3.2-2: Acres in MA Allocations Most Subject to Ground Disturbing Activities	3-29
Table 3.2-3: Acres With A High Erosion Hazard, in MA Allocations Most Subject to Ground Disturbing Activities	3-30
Table 3.3-1: Potential Effects of Common FS Activities on Water Quality, Fisheries Habitat, and Riparian Areas, Without Resource Protection Measures	3-39
Table 3.5-1: Composition and abundance of potential natural vegetation of the GMNF	3-53
Table 3.5-2: Composition objectives from the 1987 Forest Plan	3-57
Table 3.5-3: Age class objectives for management area where even-aged silviculture is practiced, based on the 1987 Forest Plan	3-58
Table 3.5-4: Composition objectives proposed for the revised GMNF Forest Plan	3-59
Table 3.5-5: Age class objectives proposed for the revised GMNF Forest Plan	3-60
Table 3.5-6: Current composition and abundance of the GMNF by major forest community compared to ecological tendencies for potential natural vegetation	3-61
Table 3.5-7: Forest-wide summary of current age class distribution by forest community	3-67
Table 3.5-8: Harvest methods applied to the GMNF from 1987 through 2001	3-68
Table 3.5-9: Acres and percent of existing aspen-birch stands in different management opportunity levels by alternative	3-73
Table 3.5-10: Acres and percent of existing oak and oak-pine stands in different management opportunity levels by alternative	3-73
Table 3.5-11: Acres and percent of LTAs with ecological tendencies to support increasing the abundance of oak and oak-pine forest in different management opportunity levels by alternative	3-74
Table 3.5-12: Expected activity levels related to the maintenance and restoration of oak forests over the next 20 years across alternatives.	3-75
Table 3.5-13: Acres and percent of lands allowing the creation of new upland openings in	3-75

<b>Table Number</b>	<b>Page</b>
different management opportunity levels by alternative	
Table 3.5-14: Acres and percent of lands allowing the enhancement and creation of aspen-birch forest in different management opportunity levels by alternative	3-76
Table 3.5-15: Expected activity levels related to the maintenance and enhancement of aspen-birch forests over the next 20 years across alternatives.	3-76
Table 3.5-16: Projected Forest age class distribution for Alternative A, at 20 and 150 years	3-79
Table 3.5-17: Projected Forest age class distribution for Alternative B, at 20 and 150 years	3-80
Table 3.5-18: Projected Forest age class distribution for Alternative C, at 20 and 150 years	3-80
Table 3.5-19: Projected Forest age class distribution for Alternative D, at 20 and 150 years	3-80
Table 3.5-20: Projected Forest age class distribution for Alternative E, at 20 and 150 years	3-80
Table 3.5-21: Average annual acres of harvest projected by Spectrum for various harvest methods over the 150-year modeling period, by alternative.	3-83
Table 3.5.3-1: GMNF NNIS 2004 list and associated major habitat types.	3-94
Table 3.5.3-2: Acres in management areas that are most likely to allow activities associated with the indicators for increased spread, establishment, and growth of NNIS	3-97
Table 3.6-1: Habitat communities, conditions, and MIS for the GMNF included in the 1987 Forest Plan.	3-105
Table 3.6-2: MIS for the revised Forest Plan linked to resource issues or habitat types.	3-107
Table 3.6-3: Distribution of deer wintering areas on the GMNF, by management area.	3-110
Table 3.6-4: Management activities that create early successional habitat on the GMNF, including projected annual acreage and percent realized during 1987 to 2001.	3-111
Table 3.6-5: Allocation of GMNF lands to MAs that contribute to remote habitat conditions for wildlife. Allocations are from Alternative A, the “no action” alternative of the revised Plan, which reflects current allocation under the 1987 Forest Plan.	3-111
Table 3.6-6: Trends for populations (Pop) of GMNF MIS and the habitats (Hab) they represent, for New England, Vermont, and the GMNF.	3-112
Table 3.6-7: Acreage of potential wintering habitat for white-tailed deer allocated to MAs that allow vegetation management, allow limited vegetation management, or do not allow vegetation management for maintenance or enhancement of wintering areas, by alternative	3-128
Table 3.6-8: Acreages in the suitable for timber production landbase allocated to MAs that allow timber management, allow limited cutting of trees, do not allow timber or vegetation management, do or do not allow creation of new permanent openings, and estimated average annual acreage of early successional habitat created by clearcut and shelterwood regeneration during 20 years and 150 years of management under the revised Forest Plan, by alternative.	3-129
Table 3.6-9: Approximate acreage allocated to management areas that provide potential habitat for reclusive species, by alternative.	3-130
Table 3.6-10: Management opportunity for aspen and aspen-birch and projected trends of each for 20 years and 150 years, by alternative. Acreages for current condition (e.g., 2004) are the same as under Alternative A.	3-131

<b>Table Number</b>	<b>Page</b>
Table 3.6-11: Management opportunity for oak and oak-pine and projected trends of each for 20 years and 100-150 years, by alternative. Acreages for current condition (e.g., 2004) are the same as under Alternative A.	3-132
Table 3.6-12: Approximate lengths of perennial streams allocated to management areas that prohibit restoration, enhancement, and other riparian management activities, by alternative.	3-133
Table 3.7-1: Acres in MA Allocations Most Subject to Ground Disturbing Activities	3-138
Table 3.8-1: Acreage of the GMNF within five miles of bat hibernacula where Indiana bats have been found <sup>1</sup> and acreage at or below 800 feet elevation adjacent to the Champlain Valley or Valley of Vermont allocated to MAs that allow or do not allow vegetation management activity that could affect Indiana bats or potential Indiana bat habitat, by alternative	3-150
Table 3.9-1: Animal species of viability concern and their habitat groups on the GMNF	3-169
Table 3.9-2: Plant species of viability concern and their habitat groups on the GMNF	3-171
Table 3.9-3: Non-TES animal species of viability concern that are not currently designated as RFSS and factors affecting their viability	3-174
Table 3.9-4: Non-TES plant species of viability concern that are not currently designated as RFSS and factors affecting their viability	3-175
Table 3.9-5: GMNF current and future (20 years) viability outcomes for animal species of viability concern, including rationale for GMNF outcomes.	3-178
Table 3.9-6: GMNF current and future (20 years) viability outcomes for plant species of viability concern, including rationale for GMNF outcomes.	3-182
Table 3.9-7: Summary of Determination of Effect for Sensitive Species	3-199
Table 3.10-1: Description of National ROS classes.	3-203
Table 3.10-2: GMNF Inventoried ROS Classes	3-208
Table 3.10-3: GMNF Developed Recreation Facility Capacities	3-208
Table 3.10-4: GMNF Miles of Trails by Managed Use	3-209
Table 3.10-5: Recreation Site Use on the Green Mountain National Forest	3-211
Table 3.10-6: Top Recreation Activities Participated in on the Green Mountain National Forest	3-211
Table 3.10-7: Estimated participation in Selected Recreation Activities for Vermont, Vermont's Market Region, and the U.S.	3-212
Table 3.10-8: Percent Change in Participation, 1995 to 2003, for Residents in Vermont's Market Region (NH, MA, NY, VT)	3-213
Table 3.10-9: Desired ROS Classification for each Management Area	3-213
Table 3.10-10: Estimated Distribution (percent) of Desired ROS Classes by Alternative	3-214
Table 3.10-11: Allowed Future Trail Development by Use Type for each Management Area	3-216
Table 3.10-12: Percent of Green Mountain National Forest Available for Future Trail Development by Trail Use	3-218

<b>Table Number</b>	<b>Page</b>
Table 3.10-13: Future Developed Recreation Opportunities by Constraint Level for each Management Area	3-219
Table 3.10-14: Acres (Percent) of Green Mountain National Forest Available for Future Developed Recreation Opportunities by Constraint Level	3-220
Table 3.10-15: Future Recreation Special Use Permits by Constraint Level for each MA	3-221
Table 3.10-16: Acres (Percent) of Green Mountain National Forest Available for Future Recreation Special Uses by Constraint Level	3-222
Table 3.10-17: Existing Recreation Infrastructure within Wilderness Study Areas that are Inconsistent with Wilderness Act	3-223
Table 3.11-1: Existing RNAs, candidate RNAs, Ecological SMAs, and Future Old Growth Areas on the GMNF	3-230
Table 3.11-2: Current Acres and Percent of the GMNF in Documented Old Growth and Older Age Class Stands.	3-234
Table 3.11-3: Acres and proportion of the GMNF and of special designations (RNAs, cRNAs, SMAs, and old growth areas) under the 1987 Plan in each LTA	3-236
Table 3.11-4: Acres and proportion of the GMNF and of special designations (RNAs, cRNAs, SMAs, and old growth areas) under the 1987 Plan in each ELUG.	3-237
Table 3.11-5: Acres and proportion of the GMNF and of special designations (RNAs, cRNAs, SMAs, and old growth areas) under the 1987 Plan in each vegetative community.	3-237
Table 3.11-6: Significant Features and their designations in RNAs, cRNAs, ecological SMAs or old growth areas across alternatives	3-241
Table 3.11-7: Acres of RNAs, cRNAs, Ecological SMAs, and potential old growth forest by Alternative	3-242
Table 3.11-8: Proportions of LTAs represented within RNA, cRNA, Ecological Special Area, or old growth area designations, across alternatives	3-252
Table 3.11-9: Proportions of ELUGs represented within RNA, cRNA, Ecological Special Area, or old growth area designations, across alternatives	3-253
Table 3.11-10: Acres and proportions of the GMNF vegetative communities represented within RNA, cRNA, Ecological Special Area, or old growth area designations, across alternatives	3-254
Table 3.12-1: Designated Wilderness on the Green Mountain National Forest	3-259
Table 3.12-2: Wilderness Study Areas by Alternative	3-263
Table 3.12-3: Rivers Eligible as Wild, Scenic, and Recreational Rivers	3-271
Table 3.13-1: Management Area Suitability for Timber Production (1987)	3-281
Table 3.13-2: Timber Productivity of GMNF	3-284
Table 3.13-3: Culmination of Mean Annual Increment (CMAI) for GMNF Species	3-284
Table 3.13-4: Green Mountain NF Timber Volume Sold (1960-2006)	3-285
Table 3.13-5: Forest Plan Silviculture Objectives - Projected Annual Average Output, and Percent Accomplished (1987-2001)	3-286

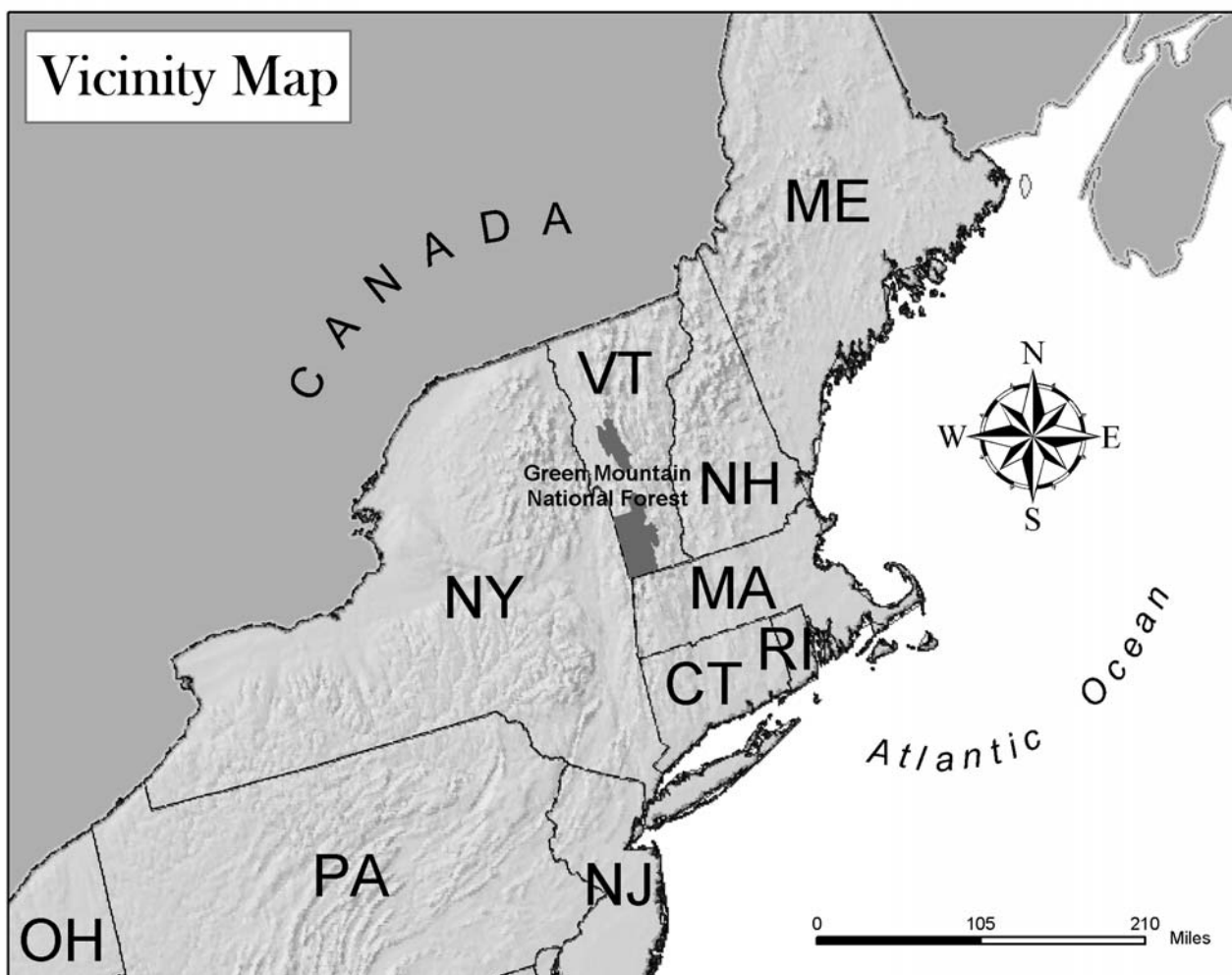
<b>Table Number</b>	<b>Page</b>
Table 3.13-6: Forest Productivity on Lands Suitable for Timber Production	3-287
Table 3.13-7: Proposed Average Annual Allowable Sale Quantity (ASQ) by Alternative (MMBF) for Decades 1 to 15.	3-288
Table 3.13-8: Projected Average Annual Acres Cut in the Short-term (2005-2014) by Harvest Method	3-289
Table 3.13-9: Lands Suitable for Timber Production	3-291
Table 3.14-1: Existing Non-recreation Special Use Authorizations for the GMNF	3-296
Table 3.14-2: Acres in Management Area Allocations that Allow Wind Power and Communication Site Non-recreation Special Uses	3-300
Table 3.14-3: Acres of GMNF Land Potentially Suitable for Commercial Wind Development	3-300
Table 3.14-4: Acres Allocated for New Discretionary Authorizations by Management Area	3-301
Table 3.14-5: Acres Allocated with Restrictions for New Discretionary Authorizations by Management Area	3-301
Table 3.15-1: Acreage of NFS Lands Grouped by MAs with Similar Opportunities for Vista Management	3-314
Table 3.17-1: Historical Natural Fire Regimes	3-329
Table 3.17-2: Condition Class Descriptions	3-329
Table 3.17-3: Management Area Allocations where Prescribed Fire would be Allowed	3-331
Table 3.17-4: Management Area Allocations where Wildland Fire Use would be Allowed	3-332
Table 3.18-1: Current Acres Available for Various Types of Special Forest Product Uses	3-336
Table 3.18-2: Types of Special Forest Products Uses Allowed Within Each Management Area of the Revised Plan.	3-340
Table 3.18-3: Acres Potentially Available for Various Types of Special Forest Product Uses by Alternative.	3-340
Table 3.19-1: Acres Open To Surface Occupancy	3-344
Table 3.20-1: Road surfacing type for all roads and Forest Service roads in the Green Mountain National Forest, 2004.	3-348
Table 3.20-2: Acres in management areas that allow road development and maintenance	3-350
Table 3.21-1: Study Counties and Towns with National Forest System lands in Vermont	3-353
Table 3.21-2: Percent Change in Population and Age Class from 1990-2000.	3-357
Table 3.21-3: Percent of Population Living in Vermont by Place of Origin	3-359
Table 3.21-4: Racial Composition for Counties with NFS Lands	3-359
Table 3.21-5: Families and Individuals Below Poverty Level for Counties with NFS Lands	3-361
Table 3.21-6: Comparative Overview of Unemployment Rates, 1990 to 2002, for the State of Vermont and for Counties with NFS Lands	3-362
Table 3.21-7: Per Capita Income (PCI) for Counties with NFS Lands	3-362
Table 3.21-8: Income from Wood Products and Processing for Counties with NFS Lands	3-363

<b>Table Number</b>	<b>Page</b>
(1980 to 2000)	
Table 3.21-9: Income from Tourism-Related Industries for Counties with NFS Lands (1980 to 2000)	3-364
Table 3.21-10: Median Housing Value for Specified Owner-Occupied Housing Units, for Counties with NFS Lands	3-364
Table 3.21-11: Number of Seasonal Homes for Counties with NFS Lands	3-365
Table 3.21-12: Size of Private Ownership Forest Land Holdings for Southern Vermont	3-367
Table 3.21-13: Acreage and type of Forested Lands by County (in thousands of acres)	3-367
Table 3.21-14: Timberland Ownership Class by County in 1997 (thousands of acres)	3-372
Table 3.21-15: 1999 Household Income for Counties with NFS Lands (Number of Households in Income Range)	3-374
Table 3.21-16: Dominant Occupation for Counties with NFS Lands, 2000	3-374
Table 3.21-17: Tourism Employment in Service Industries for Counties with NFS Lands, 2000	3-375
Table 3.21-18: Full-Time and Part-Time Employment by Industry for Counties with NFS Lands, 2000	3-375
Table 3.21-19: Personal Income by Employment Sector in 2000 (in Thousands of Dollars)	3-377
Table 3.21-20: Employment by Program by Alternative (Average Annual, Decade 1)	3-382
Table 3.21-21: Labor Income by Program by Alternative (Average Annual, Decade 1; in Millions of Dollars)	3-382
Table 3.21-22: Employment by Major Industry by Alternative (Average Annual, Decade 1)	3-383
Table 3.21-23: Labor Income by Major Industry by Alternative (Average Annual, Decade 1 in Millions of Dollars)	3-383
Table 3.21-24: Present Net Value (PNV) in Thousands of Dollars	3-386
Table 3.22.1: Income Demographics by County	3-389
Table 3.22-2: Ethnic Demographics by County	3-391
Table 3.22-3: Hispanic or Latino Populations (Actual and Percent of Total)	3-391
Table 3.22-4: Population Below Poverty Level <sup>1</sup> (Actual and Percent of Total)	3-391

## List of Figures

Figure Number	Page
Figure 3.1-1: Ecological Units in the Northeastern United States and the Green Mountain National Forest	3-9
Figure 3.2-1: A soil improvement project. A large culvert was removed from an old, closed logging road to prevent erosion and sedimentation along a stream.	3-26
Figure 3.4-1: Particulate matter (PM-2.5) emissions from all sources in Addison, Bennington and Rutland counties compared to historical annual maximum (500 acres) and proposed annual maximum (1500 acres) prescribed fire on the GMNF.	3-47
Figure 3.21-1: Counties and Towns in the Analysis Area	3-354
Figure 3.21-2: Cities included within four and eight hour driving times of the Green Mountain National Forest.	3-356
Figure 3.21-3: Educational Attainment by % of Population Over 25	3-358
Figure 3.21-4: Total Payments to Vermont Towns	3-365





## Chapter 1 Purpose and Need

Introduction	1-2
Forest Plan Decisions	1-2
Purpose and Need for Change	1-3
Proposed Action	1-4
Public Involvement and Collaborative Planning	1-5
Issues	1-7

## 1.1 PURPOSE AND NEED

### 1.1.1 Introduction

The Green Mountain National Forest (GMNF) consists of more than 400,000 acres located in central and southern Vermont (see Vicinity Map). The Forest represents approximately seven percent of the State's land area and hosts up to 3.4 million visitors each year. The GMNF provides a diverse mix of public land use opportunities including various recreation activities, Wilderness areas, wildlife habitat, clean water, thriving fisheries, wood products, and a scenic backdrop. Fifty-three towns, ranging in population from 16,000 people to less than 10 people, are located within the Forest's Proclamation Boundary.

The USDA Forest Service administers the GMNF, aided by partners, other agencies, individuals, and concessionaires. The Forest is divided into two districts, referred to as the North Half and South Half, with offices in Rochester, Middlebury, and Manchester. The Forest Headquarters is currently located in Rutland.

The Forest Service proposes to revise the GMNF Land and Resource Management Plan (Forest Plan or Plan) that was approved by the Eastern Regional Forester in January 1987. There have been nine amendments to the 1987 Forest Plan since its approval. Revision of the Plan is now needed to meet federal law and regulations as well as to address new information about the Forest and its uses. The Revised Forest Plan would be used to guide all natural resource management activities, establish management goals and objectives, guide allocation of lands to different management emphases, and provide standards and guidelines for Plan implementation on the GMNF over the next 10 to 15 years.

Many Forest management issues cross administrative boundaries and are addressed on a scale larger than the GMNF. The GMNF planning team worked with the public, other federal, State, and local agencies, and

scientists to ensure broad participation when proposing and analyzing potential changes to resource management on the GMNF.

This Final Environmental Impact Statement (FEIS) discloses, in a comparative format, the potential effects of applying five alternatives for revising the Forest Plan. Included in the analysis are the potential physical, biological, social, and economic effects from implementing each alternative. The selected alternative will become the 2006 Green Mountain National Forest Land and Resource Management Plan (2006 Forest Plan) and will supercede the 1987 Plan. The FEIS follows the implementing regulations of the National Environmental Policy Act (NEPA) found in 40 CFR, Parts 1500-1508.

The FEIS discloses:

- *The Purpose and Need for Change:* why the 1987 Plan is being revised and what issues need to be considered in the revision process.
- *The Alternatives:* a range of reasonable approaches for meeting the purpose and need and addressing the issues.
- *The Affected Environment:* the physical, biological and socio-economic settings within the GMNF and its surrounding area.
- *Environmental Consequences:* the effects of each alternative on the Forest's resources, as well as the surrounding social and economic environments, in the long- and short-term, and cumulatively.

### 1.1.2 Forest Plan Decisions

The revised Forest Plan is a programmatic framework which guides site specific actions but does not authorize, fund, or carry-out any project decisions. The revised Plan functions as a gateway for compliance with environmental laws during subsequent site specific decision-making. Similar to a zoning ordinance, the revised Plan allows for activities

that may occur through future decision-making, but does not authorize or mandate any ground-disturbing actions. The Plan may be amended at any time through a site specific Plan amendment (operating similar to a zoning variance) to alter the direction applicable to a particular site. The Plan provides a broader-scale decision that does not compel or contain any site specific decisions resulting in an irretrievable or irreversible commitment of resources, but simply represents one level in a multi-stage decision-making process. The environmental disclosure information in this FEIS is commensurate with the programmatic nature of the proposal.

The focus of this revised Plan is on the condition of the land as a basis for providing multiple-use goods and services to the public. The Plan embodies a multiple-use concept of natural resource management. The Forest Service has strived to balance competing uses across the Forest landscape. Not each use can, or should occur on every acre of the Forest. The vision of this revised Plan is to blend multiple-use resource management in such a way that sustains and protects the overall health and condition of the land and best meets the needs of the American people.

The GMNF Forest Plan revision process follows the 1982 planning regulations (36 CFR Part 219) for developing Forest Plans pursuant to the National Forest Management Act (NFMA). Unless specified, references to the NFMA CFRs throughout these documents are to the 1982 implementing regulations. Planning actions required by the NFMA and used in this planning process are:

- Identification of issues, concerns, and opportunities
- Development of planning criteria
- Inventory of resources and data collection
- Analysis of the Management Situation
- Formulation of alternatives
- Estimation of effects of alternatives
- Evaluation of alternatives
- Recommendation of a preferred alternative
- Approval and implementation
- Monitoring and evaluation

The following key decisions are made in a Forest Plan:

1. Forest-wide multiple-use goals and objectives (36 CFR 219.11(b))
2. Forest-wide management requirements (such as standards and guidelines) (36 CFR 219.13-27)
3. Management area direction (36 CFR 219.11 (c))
4. Lands suited and not suited for timber production (36 CFR 219.14), and establishment of an allowable sale quantity (36 CFR 219.16)
5. Monitoring and evaluation requirements (36 CFR 219.11 (d))
6. Recommendations to Congress (such as wilderness designations) (36 CFR 219.17)

The Regional Forester is the Responsible Official for the analysis and decisions for Forest Plan revision. Alternative development, conducting the analysis, as well as DEIS and FEIS preparation were done at the local Forest level under the direction of the Forest Supervisor of the Green Mountain and Finger Lakes National Forests. The Regional Forester selected Alternative E to become the 2006 Forest Plan based on the analysis in the DEIS, public comments, and the analysis in this FEIS. The Regional Forester has provided the rationale for alternative selection in the Record of Decision (ROD) accompanying the FEIS. The alternative selected includes the six key Forest Plan decisions.

### 1.1.3 Purpose and Need for Change

The purpose of Forest Plan revision rests in the NFMA and its implementing regulations contained in 36 CFR 219 (1982), which require National Forests to revise Forest Plans:

- Every 10 to 15 years
- When conditions or demands in the area covered by the plan have changed significantly
- When changes in agency policies, goals, or objectives would have a significant effect on forest level programs

- When monitoring and evaluation indicate that a revision is necessary

There are three primary reasons to revise the GMNF 1987 Forest Plan:

1. It has been more than 15 years since the Regional Forester approved the 1987 Plan.
2. Agency goals and objectives, along with other national guidance for strategic plans and programs, have changed.
3. New issues and trends have been identified that could change the management goals, management areas, standards and guidelines, and monitoring and evaluation strategy in the Plan.

Public dialogue and Forest Service staff monitoring and evaluation of 1987 Plan implementation were used to complete the Analysis of the Management Situation (AMS) published in a report entitled, *Implementing the Green Mountain National Forest Land and Resource Management Plan – A 15 Year Retrospective* (USDA 2002c). This report is based on 15 years of Forest Service monitoring, the experience of Forest Service resource managers' implementing the Forest Plan, and public input. A total of 32 separate resource issues were identified to help focus what management direction in the 1987 Plan is in need of change. These issues were grouped into 15 issues that are now the basis of the revision process and are discussed in more detail in subsection 1.1.6 of this chapter.

Four broad goals with detailed components were included in the 1987 Plan. They are:

1. Resource Protection
2. Public Use and Enjoyment of the GMNF
3. Vegetation Management
4. Land Adjustment

These goals were established more than 15 years ago by examining the issues identified by the public, the capabilities of the Forest, and the role that the GMNF can, or should play in meeting issues or resource problems. Review of these goals by Forest Service staff has led to the conclusion that many of the 1987 Forest Plan goals are overall broad "umbrella"

statements, a procedure, a legal requirement, or a mixture of policies, directives, and objectives rather than goals.

Annual monitoring and evaluation reports have examined how well the Forest Service has met established objectives to achieve the 1987 Plan goals over the past 15 years. Forest Service staff concluded that many of the 1987 Plan objectives contain outdated methods for units of measurement or that they need to be updated to conform to national standards. In addition, some objectives in the 1987 Plan selected units of measure that were not accurate, some either under or over estimated a need, and some contained unrealistic end goals.

In addition to changing public views about how the GMNF should be managed, change has occurred regarding information and scientific understanding of forest ecosystems. Some of this new information is a product of research, while other information has resulted from changes in technology. Incorporating the "best science" is new, and is not addressed directly in the 1987 Plan. Utilizing scientific research, inventory, and monitoring has always been an objective. The need to use appropriate methodologies in monitoring and evaluation, as well as to provide clear understandable scientific information for the public, are among several science-related areas of concern that have been identified.

## 1.1.4 Proposed Action

The Forest Service proposes to revise the 1987 Forest Plan to guide management of the GMNF for the next 10 to 15 years. Specific proposals were identified through public input and Forest Service staff analysis of implementing the 1987 Plan. The proposed changes to the Forest Plan include a restructuring of the management area descriptions that guide the management direction across the Forest; changes in management area allocations to provide a range of management opportunities and to achieve desired future conditions; changes to goals, objectives, standards, and guidelines for desired direction, relevance, consistency, and accuracy; and to address minor overall inconsistencies in the 1987 Plan. More far-

reaching proposed changes are associated with the primary issues used to develop the need for change of the 1987 Plan. The proposals specific to these issues include the following:

### **Special Designations**

- Determine the most appropriate mix of specially designated areas to promote ecological, social, and economic sustainability
- Make recommendations to the Congress on special area designations such as Wilderness
- Make designations that are within the authority of the Forest Service, such as Research Natural Areas (RNAs)

Existing congressionally designated areas and existing RNAs were not revisited during the Forest Plan revision process.

### **Biodiversity and Ecosystem Management**

- Consider biodiversity and natural communities at a variety of landscape scales and landscape patterns
- Provide for mixes of desired and viable plant and animal species populations, natural communities, and landscape patterns
- Revise the Forest's management indicators including MIS

### **Social and Economic Concerns**

- Provide for a mix of quantitative and qualitative socio-economic benefits provided by the Forest to the public and neighboring communities

### **Recreation Management**

- Provide for the appropriate mix of primitive, dispersed-use opportunities and more developed, higher density opportunities
- Provide guidance for the use of mountain bikes and the use of motorized vehicles such as snowmobiles and off-highway vehicles

- Identify the areas with opportunities for future trail development

### **Timber Management**

- Determine an appropriate level for timber harvesting
- Establish methods and uses for vegetation management
- More clearly define the desired mix and location of various vegetative forest types and age class distributions

## **1.1.5 Public Involvement and Collaborative Planning**

Forest planning occurs within the overall framework provided by implementing regulations of the NFMA and NEPA. Public involvement is a key component in the Forest Plan revision process under these regulations.

Public involvement and input have been essential elements of the Plan revision process since it began in 1996 (see Appendix A for a complete discussion of the public involvement process). This process was designed to identify changes needed in the 1987 Plan. One of the goals of this process was to emphasize public involvement and community partnerships. Forest Plan revision is a process that relies heavily on the collaboration of many stakeholders and the resolution of many issues. The GMNF planning team focused on creating an atmosphere of openness in which all members of the public would have an opportunity to share information.

To this end, the Forest Service has sought information, comments, and assistance from individuals, organizations, tribal governments, and federal, State, and local agencies that are interested in, or may be affected by the proposed action (36 CFR 219.6). The Forest Service has also pursued collaborative approaches with members of the public who are interested in Forest management.

From 1996 to 1998, and prior to initiating formal scoping, several public meetings were held to identify issues and concerns related to

management of the GMNF. These issues and concerns were studied and discussed by both the public and Forest Service staff, and issue papers were developed. The Plan revision process was halted in 1998 when funding was cut by the Congress due to the development of new NFMA planning regulations.

Funding for Plan revision was restored in 2001. At that time, the GMNF received a grant from the United States Institute for Environmental Conflict Resolution (US Institute) to develop and implement a public involvement process for Plan revision. The US Institute contracted Adamant Accord, based in Adamant, VT, to work directly with the Forest Service and the public. The goal was to help the public and Forest Service work together and collaboratively develop alternatives to resolve contentious issues.

Public planning meetings were resumed in 2001. These meetings were designed primarily to validate issues identified in the 1996 to 1998 planning process and identify any new issues that had since emerged. The information provided by this public dialogue and by Forest Service staff evaluation and monitoring of the 1987 Plan implementation was used to complete the Analysis of the Management Situation (AMS) (USDA 2002c).

The AMS was used to evaluate how well the management strategies found in the 1987 Plan worked, and provided a documented discussion of the issues and concerns that were encountered over the 15 years of Plan implementation. The AMS helped focus the need for change to the 1987 Forest Plan and served as a starting point for the Plan revision process.

In May 2002, the Forest Service initiated the formal scoping process by publishing a Notice of Intent (NOI) to prepare an Environmental Impact Statement and a revised Land and Resource Management Plan (Vol. 67, No. 85, 22043-22048). The NOI described the focus of change needed for the 1987 Forest Plan and invited the public to comment on the proposal to revise the Forest Plan. Three public meetings were held during the formal comment period in

Middlebury, Wilmington, and Rutland to review the NOI, answer questions, and to explain how to provide comments. NOI comments were analyzed to determine public issues and concerns. Review of the public comments confirmed that the Plan revision process as proposed in the NOI would be covering the concerns of the public.

Fifteen separate but interrelated issues were identified from the AMS, NOI, and public comments. These issues were evaluated, developed, and grouped into categories based on: 1) the degree to which they would affect Forest Plan direction, management area designations, goals, objectives, standards and/or guidelines; and 2) the level of concern received from the public and Forest Service staff. There were two categories of issues carried forward into the preparation of the DEIS and used to define the scope of the analysis: 1) *major issues that have been used to develop alternatives*; and, 2) *issues that do not require an alternative but are addressed in the context of the analysis across all alternatives*. The two categories of issues are discussed with more detail in the remaining sections of this chapter.

Beginning in January 2003, a series of local public planning meetings were regularly held in various towns within and near the Forest. These meetings were designed to further explore the issues and provide a working group environment with the public to help focus the Plan revision process. These meetings culminated in the summer of 2004 with the presentation of preliminary draft alternatives that Forest Service staff developed to address the major issues.

Since the initiation of the Plan revision process in 1996, there have been more than 80 local planning meetings in communities in and around the Forest, as well as four educational forums on the topics of wilderness, timber harvesting, the history of the GMNF, and recreation. Throughout this process the public has been encouraged to call, visit the office, and/or submit letters and/or emails to have their comments and questions addressed. The public involvement process has enabled the Forest Service to accomplish the following:

- Keep the public informed during the entire process
- Gather public input on issues
- Define the scope and nature of the decisions to be made
- Formulate alternatives
- Address various management conflicts

In April 2005, the Forest Service released the DEIS and Proposed Revised Forest Plan for public review and initiated a three-month public comment period. Specifically, the Forest Service asked the public the following questions:

- Are your issues accurately represented?
- Are all key issues included?
- Do the alternatives outlined in this DEIS address the Plan revision issues and purpose and need?
- How could the alternatives be adjusted to better meet the purpose and need or issues?
- Is there at least one alternative, or part of an alternative, that addresses your issues?
- How well does the environmental effects analysis consider anticipated effects?
- How well are the management areas defined in the proposed Plan?
- Do the forest-wide and management area standards and guidelines address the stated goals, objectives, and desired future conditions?

After the release of the Proposed Revised Forest Plan and DEIS documents, the Forest Service held another series of open house meetings. These meetings were important public forums to ask questions about the Proposed Revised Forest Plan in order to provide more informed and meaningful comments.

The Forest Service received more than 10,000 responses, including letters, emails, and facsimiles on the Proposed Revised Forest Plan and DEIS. Those responses contained more than 4,000 substantive comments. Substantive comments are addressed in the FEIS Appendix H – Response to Comments.

Continuous public involvement throughout the Plan revision process will facilitate the eventual implementation of the revised Plan. To this end, the Forest Service intends to maintain consistent public involvement as the 2006 Forest Plan is implemented by site-specific project planning.

## 1.1.6 Issues

Forest Plan revision issues are those areas of Forest management that require a change as a result of new scientific information, changed resource conditions, a better understanding of previous management based on monitoring and evaluation information, and/or changing public needs. The issues identified through the planning and public participation process were categorized into two groups that helped define the scope of the analysis documented in the FEIS. These two categories of issues, those that were deemed major enough to necessitate varied approaches in alternatives to revising the Plan and those that could be addressed through other means are summarized in this subsection. A more detailed discussion of the issues as they relate to resources can be found at the beginning of each respective resource section in Chapter 3.

### Major Issues

Major issues are those that were identified to have the most potential impact on the management of the Forest and direction of the Plan. These issues reflect the resources that have been proposed for the most change in management direction from the 1987 Plan and thus were the main factors used to develop alternatives. There are five major issues that were identified that are addressed in this FEIS through alternatives:

1. Special Designations
2. Biodiversity and Ecosystem Management
3. Social and Economic Concerns
4. Recreation Management
5. Timber Management

Each of the major issues has one or more indicators that measure the potential effects of



alternative implementation. Indicators highlight differences among alternatives, and help track the issues throughout the environmental effects analysis. Generally, indicators are quantitative, but some are qualitative. These indicators will also be used in Chapter 2 to highlight the differences between alternatives, and help summarize the impacts of the alternatives. The analysis for some resources in Chapter 3 may use additional indicators to show the differences between alternatives in more detail.

## 1) Special Designations

Wilderness, wild and scenic rivers, national recreation areas (NRAs) and research natural areas (RNAs), among others, are allocations of lands to specific uses, some requiring congressional designation. These specially designated lands may not allow for, or may have reduced levels of, timber and wildlife management and may limit some forms of recreational access. The concern is that while many people may want to see more land allocated to these areas, others may oppose such allocation and may even desire a reduction in the quantities currently established.

Issue Indicators:

- Acres of recommended wilderness
- Number of unique natural communities included in recommended wilderness
- Impacts of Wilderness designation on recreation opportunities
- Acres of suitable land for timber production removed from management if designated wilderness
- Community values associated with wilderness designation
- Acres of Research Natural Areas (RNA), Candidate Research Natural Areas (cRNA), Ecological Special Management Areas (SMA), and old growth areas
- Percentage of ecological units represented within RNAs, cRNAs, Ecological SMAs, and old growth areas.

## 2) Biodiversity and Ecosystem Management

This issue concerns the restoration, protection, maintenance and enhancement of biological and ecological diversity by conservation of species, plant and animal communities, and ecosystems at a variety of scales. It also includes topics such as old growth, wildlife and fisheries management, soils, air, botany, fire management, invasive species management, pest management and pesticides, and biological reserves.

Some specific concerns expressed by the public on this issue include the need to:

- Protect biological diversity
- Protect ecological systems and processes
- Maintain wildlife habitat for biological diversity
- Conserve remote and contiguous habitat to meet wildlife needs
- Maintain species population viability
- Define the role of the Forest to provide for biological diversity
- Increase levels of protection for ecological integrity, complexity, and biological diversity
- Manage at the landscape level using principles of conservation biology including core areas, corridors and buffers

There is also public concern that efforts to protect biological diversity may result in reduced timber production, limits on motorized access, or reduced game animal populations.

Issue Indicators:

- Amount of each major forest community type (composition and abundance)
- Proportion of each major forest community type in various age categories (age class distribution)
- Acres of white-tailed deer wintering habitat allocated to management areas allowing vegetation management
- Early successional habitat provided and opportunities for its management

- Acres available as habitat for reclusive species
- Acres of wildlife habitat for management indicator species
- Viability outcomes for species with viability concerns

### 3) Social and Economic Concerns

The importance and extent of social and economic impacts vary based on the perspective of the individual. The concern is that while some people believe that the Forest Service should recognize and address community concerns, opportunities, and sustainability, others believe that social and economic factors are less important than environmental concerns. Concerns have also been expressed in the areas of tax loss from land acquisition, potential revenues, and employment that could be generated from the Forest through resource management and regional tourism.

Issue Indicators:

- Community values
- Economic impacts
- Present net value

### 4) Recreation Management

Concerns have been expressed regarding the appropriate mix of recreational opportunities offered on the GMNF, including developed recreation facilities, trails, and accessibility. The public is requesting that the Forest Service continue to place high emphasis on providing a diverse range of recreational opportunities. Determining the appropriate mix of primitive, backcountry, low-density recreation opportunities; more developed, higher density recreation opportunities; and motorized and non-motorized trail use is a concern. Some people want new or improved facilities for, and improved signage and information about, recreational opportunities

It is believed that there have been increases in many recreational uses during the life of the 1987 Forest Plan. The effects of recreational use on the ecosystem, as well as conflicting

recreational uses, need evaluation. Furthermore, analysis for the Forest Plan should consider current and projected use, carrying capacity, and the economic value of recreation.

Issue Indicators:

- Desired Recreation Opportunity Spectrum (ROS) classes by management area
- Number of acres available for trail development by trail activity
- Acres of land available for future developed recreation facilities
- Acres of land available for recreation special use activities

### 5) Timber Management

The 1987 Plan states that timber management can be used to maintain and enhance vegetative diversity, wildlife habitats, vistas, and the health and condition of the forest ecosystem, as well as produce high quality sawtimber. Timber harvesting can also be used as a tool to achieve recreation, visual, wildlife, timber, forest health and other objectives assigned to management areas (MAs). Monitoring of the 1987 Plan indicates that the amount of timber harvested on the GMNF has been well below that necessary to create the desired future conditions outlined in the Plan. In addition, Forest Plan objectives that rely on timber management (such as the creation of habitat diversity for wildlife species) have not been met.

There are differing views regarding the role of timber harvesting on the Forest, the amount of timber that should be cut, harvest methods that should be used, and management intensity.

Issue Indicators:

- Acres of land identified as suitable for timber production
- Timber sale volume – annual average Allowable Sale Quantity (ASQ)
- Acres of harvest treatment methods

## Other Issues

There were ten issues identified that were important enough to address in the context of the analysis in the FEIS, although they didn't trigger a need for alternative development. These issues could still have a considerable impact on the management of the Forest and direction contained in the Plan, but to a lesser degree than the major issues. These issues are addressed across all alternatives either through goals, objectives, standards, guidelines, or management direction, and include:

1. Role of the Green Mountain National Forest
2. Special Use Management
3. Heritage Resources
4. Road Management and Transportation Planning
5. Monitoring and Evaluation
6. Information and Education
7. Visual Quality and Scenery Management
8. Coordination and Partnerships
9. Water Resources
10. Land Acquisition

### 1) Role of the Green Mountain National Forest

The GMNF is integral to the sense of place for communities across central and southern Vermont. The role of the Forest is viewed differently depending on a community's, or individual's use of, or reliance upon it.

Some people believe that the role of the GMNF is to provide unique opportunities like wilderness, backcountry recreation, continuous blocks of habitat, old growth, and biodiversity. Others believe that the role of the Forest is to provide high quality sawtimber for Vermont's forest products industry, as well as provide high quality wildlife habitat. Some people believe that in the face of decreasing access to private lands, the access and pressure on public lands needs to be addressed. Alternatively, many believe that the role of the GMNF should be a mixture of all of the above. The Role of the

Forest is found in Chapter 2 of the 2006 Forest Plan.

### 2) Special Use Management

Concerns were raised regarding the need to clearly identify where certain special uses may occur on the GMNF. Special use management includes both recreational and non-recreational uses, such as outfitter guides, communication towers, wind energy generation sites, large group gatherings, and special non-timber forest products.

### 3) Heritage Resources

Heritage resources include the archaeological sites, historic structures, and cultural landscapes that educate us about past people, environments, and their interactions. There are concerns over how heritage resources are managed on the GMNF such as consistency with new federal laws.

### 4) Road Management and Transportation Planning

Concerns were raised on how the Forest Service plans for, and manages roads and transportation systems on the GMNF. This includes road maintenance, construction, usage, and closure.

### 5) Monitoring and Evaluation

Monitoring and evaluation are very important parts of a Forest Plan. Through monitoring and evaluation, the Forest Service is able to verify if desired goals are accomplished and if resource protection is occurring as predicted. Concerns were raised regarding the need for clearer monitoring and evaluation direction, with an emphasis on recreation and ecology, and adequate funding for management activities. There seems to be a need for more collaborative partnerships to assist the GMNF in developing and implementing a monitoring and evaluation program.

## **6) Information and Education**

There is concern that the Forest Service needs to provide more information, increase public involvement, conduct better education programs, and increase partnerships and volunteers.

## **7) Visual Quality and Scenery Management**

There is concern regarding what level of emphasis should be placed on managing the visual quality of the landscape. Some people want to see more emphasis on visual requirements during project implementation; while others are concerned that visual management would hinder some forest management activities.

## **8) Coordination and Partnerships**

There has been concern that the GMNF should maximize partnerships and cooperative efforts with federal, State, local agencies, local and tribal governments, and local communities in order to increase the quantity and quality of resources and services available for management and enjoyment of the National Forest.

## **9) Water Resources**

This issue includes water quality, fisheries, and watershed planning. There is concern over the maintenance of water quality and watershed integrity, and the maintenance and enhancement of aquatic (fisheries) habitat to provide for viable populations of species. There also has been concern that the Forest Service should plan for the maintenance, protection, restoration and use of water resources on a watershed scale as well as plan for other activities using watersheds as the geographic framework.

## **10) Land Acquisition**

There has been concern about continued acquisition of land for inclusion in the GMNF. Some people would like to see more land acquired for conservation purposes, while others do not want any additional land purchased.